# COMMONWEALTH OF VIRGINIA Department of Environmental Quality Southwest Regional Office

# STATEMENT OF LEGAL AND FACTUAL BASIS

Dickenson-Russell Coal Company, LLC Moss 3 Preparation Plant State Route 615, Russell County, Virginia Permit No.: SWRO10235

As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Dickenson-Russell Coal Company, LLC has applied for a significant modification of the Title V Operating Permit for the Moss 3 Preparation Plant on State Route 615 in Russell County, Virginia. The Department has reviewed the application and has prepared a significant modification of the Title V Operating Permit.

Engineer/Permit Contact:	Date: <u>November 8, 2004</u>
Air Permit Manager:	Date: <u>November 8, 2004</u>
Denuty Regional Director	Date: November 8, 2004

#### **FACILITY INFORMATION**

Permittee

Dickenson-Russell Coal Company, LLC Route 2, Box 73 Cleveland, Virginia 24225

**Facility** 

Moss 3 Preparation Plant State Route 615, Russell County, Virginia

AFS ID No.: 51-167-00006

# **SOURCE DESCRIPTION**

SIC Code: 1221 – Bituminous Coal Underground Mining – Coal Preparation

The facility cleans and dries coal prior to shipment by railcar and truck. The facility utilizes two coalfired thermal dryers to dry coal cleaned by the wet preparation plant that includes froth flotation and vacuum filtration.

Air emissions from the facility include particulate matter (PM) and PM with a diameter less than 10 microns (PM-10) from coal and refuse handling equipment; volatile organic compounds (VOC) from the thermal dryers and wet preparation plant; and PM, PM-10, nitrogen oxides (NO<sub>X</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO) and trace amounts of hazardous air pollutants (HAP) from the thermal dryers.

The facility is a Title V major source of PM, PM-10, VOC and NO<sub>x</sub>. This source is located in an attainment area for all pollutants. Portions of the facility are permitted under a minor New Source Review (NSR) permit issued on August 18, 2003, and a State Operating Permit (SOP) issued on October 3, 2003. A copy of each permit is included as an attachment.

Dickenson-Russell Coal Company, LLC submitted an application for a significant modification of their Title V operating permit pertaining to construction of three refuse transfer conveyor belts and modification of the two thermal dryers. This permit modification is made in accordance with 9 VAC 5-80-230 Significant modification procedures.

#### **COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, was conducted on July 23, 2003. In addition, all reports and other data required by permit conditions or regulations, which are submitted to

DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

# EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant(s) Controlled	Applicable Permit Date
01		Railroad Car Thaw Pit Burners	72.8 MMBtu/hr	Partial Enclosure	D001	PM/PM-10	
02A	02-1	ENI Coal Flo #7.5 Dryer – Coal	100 MMBtu/hr	Cyclone Wet Scrubber Mist Eliminator	02-1 02-2 02-3	PM/PM-10, SO <sub>2</sub>	
02B	02-2	ENI Coal Flo #7.5 Dryer – Natural Gas	12 MMBtu/hr	Cyclone Wet Scrubber Mist Eliminator	02-1 02-2 02-3	PM/PM-10, SO <sub>2</sub>	
02C	02-2	ENI Coal Flo #7.5 Dryer – Propane	12 MMBtu/hr	Cyclone Wet Scrubber Mist Eliminator	02-1 02-2 02-3	PM/PM-10, SO <sub>2</sub>	10/3/03
02D	02-2	ENI Coal Flo #7.5 Dryer – Distillate Oil	12 MMBtu/hr	Cyclone Wet Scrubber Mist Eliminator	02-1 02-2 02-3	PM/PM-10, SO <sub>2</sub>	10/3/03
03A	03-1	ENI Coal Flo #10 Dryer – Coal	135 MMBtu/hr	Cyclone Wet Scrubber Mist Eliminator	03-1 03-2 03-3	PM/PM-10, SO <sub>2</sub>	
03B	03-2	ENI Coal Flo #10 Dryer - Natural Gas	12 MMBtu/hr	Cyclone Wet Scrubber Mist Eliminator	03-1 03-2 03-3	PM/PM-10, SO <sub>2</sub>	
03C	03-2	ENI Coal Flo #10 Dryer – Propane	12 MMBtu/hr	Cyclone Wet Scrubber Mist Eliminator	03-1 03-2 03-3	PM/PM-10, SO <sub>2</sub>	10/3/03
03D	03-2	ENI Coal Flo #10 Dryer – Distillate Oil	12 MMBtu/hr	Cyclone Wet Scrubber	03-1 03-2	PM/PM-10, SO <sub>2</sub>	10/3/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant(s) Controlled	Applicable Permit Date
				Mist Eliminator	03-3		
04		Crusher Feed Belt	1500 TPH	Wet Suppression and/or enclosure		PM/PM-10	
05		Impact Belt	1500 TPH	Wet Suppression and/or enclosure		PM/PM-10	
06		Raw Coal Crusher	1500 TPH	Wet Suppression and/or enclosure		PM/PM-10	
07		Stockpile Reclaim Belt	1400 TPH	Wet Suppression and/or enclosure		PM/PM-10	8/18/03
08		Silo Belt	1500 TPH	Wet Suppression and/or enclosure		PM/PM-10	
09		Plant Feed Belt	1200 TPH	Wet Suppression and/or enclosure		PM/PM-10	
10		Met Collecting Belt	850 TPH	Wet Suppression and/or enclosure		PM/PM-10	
11		Midds Collecting Belt	100 TPH	Wet Suppression and/or enclosure		PM/PM-10	
12		Met Dryer Feed Belt	550 TPH	Wet Suppression and/or enclosure		PM/PM-10	
13		Midds Dryer Feed Belt	400 TPH	Wet Suppression and/or enclosure		PM/PM-10	
14		Met Product Belt	920 TPH	Wet Suppression and/or enclosure		PM/PM-10	
15		Track 5 Loadout Belt	850 TPH	Wet Suppression and/or enclosure		PM/PM-10	
16		Midds Loadout Belt	850 TPH	Wet suppression and/or enclosure		PM/PM-10	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant(s) Controlled	Applicable Permit Date
17		Midds Stockpile Belt	617 TPH	Wet suppression and/or enclosure		PM/PM-10	
18		Silo	1500 TPH	Wet suppression and/or enclosure		PM/PM-10	
19		Met Stockpile Belt	850 TPH	Wet suppression and/or enclosure		PM/PM-10	
20		Met Reclaim Belt #1	460 TPH	Wet suppression and/or enclosure		PM/PM-10	
21		Met Reclaim Belt #2	460 TPH	Wet suppression and/or enclosure		PM/PM-10	
22		Stockpile (destock) Transfer Belt	350 TPH	Wet suppression and/or enclosure		PM/PM-10	8/18/03
23		Refuse Belt 1	600 TPH	Wet suppression and/or enclosure		PM/PM-10	
24		Refuse Collecting Belt	600 TPH	Wet suppression and/or enclosure		PM/PM-10	
25		Rotary Car Dump	1500 TPH	Wet suppression and/or enclosure		PM/PM-10	
29		AFB Transfer Belt	650 TPH	Wet suppression and/or enclosure		PM/PM-10	8/18/03
30		Gammametrix Belt 1	25 TPH	Wet suppression and/or enclosure		PM/PM-10	
31		Gammametrix Belt 2	25 TPH	Wet suppression and/or enclosure		PM/PM-10	
32		Met Product Loadout Belt	920 TPH	Wet suppression and/or enclosure		PM/PM-10	
33		Refuse Belt 2	600 TPH	Wet suppression		PM/PM-10	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant(s) Controlled	Applicable Permit Date
				and/or enclosure			
34		Refuse Belt 3	600 TPH	Wet suppression and/or enclosure		PM/PM-10	
35		Refuse Belt 4	600 TPH	Wet suppression and/or enclosure		PM/PM-10	
36		Refuse Belt 5	600 TPH	Wet suppression and/or enclosure		PM/PM-10	
37		Alt. Refuse Belt 4	600 TPH	Wet suppression and/or enclosure		PM/PM-10	
38		Alt. Refuse Belt 5	600 TPH	Wet suppression and/or enclosure		PM/PM-10	
39		Refuse Belt 6	600 TPH	Wet suppression and/or enclosure		PM/PM-10	8/18/03
40		Refuse Belt 7	600 TPH	Wet suppression and/or enclosure		PM/PM-10	8/18/03
41		Refuse Belt 8	600 TPH	Wet suppression and/or enclosure		PM/PM-10	8/18/03
44	Z01	Raw Coal Stockpile	1500 TPH	Wet suppression		PM/PM-10	
45	Z01	Clean Coal Stockpile	1250 TPH	Wet suppression		PM/PM-10	
46	Z01	Roads	90,000 miles/yr	Wet suppression		PM/PM-10	
47	Z01	Refuse Pile	600 TPH	Wet suppression		PM/PM-10	
81		Truck Dump	400 TPH	Wet suppression and/or enclosure		PM/PM-10	8/18/03
82		42" Crusher Belt	400 TPH	Wet suppression and/or enclosure		PM/PM-10	8/18/03
83		Screen	400 TPH	Wet Suppression and/or enclosure		PM/PM-10	8/18/03

Emission Unit ID	Stack ID	<b>Emission Unit Description</b>	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant(s) Controlled	Applicable Permit Date
84		Crusher	400 TPH	Wet Suppression and/or enclosure		PM/PM-10	8/18/03
85		Feeder	400 TPH	Wet Suppression and/or enclosure		PM/PM-10	8/18/03
86		Loadout Belt	800 TPH	Wet Suppression and/or enclosure		PM/PM-10	8/18/03
87		150-Ton Loadout Bin	800 TPH	Wet Suppression and/or enclosure		PM/PM-10	8/18/03
88		48" Reclaim Belt	460 TPH	Wet Suppression and/or enclosure		PM/PM-10	8/18/03

<sup>\*</sup>The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

# **EMISSIONS INVENTORY**

A copy of the Detailed Facility Data Report for calendar year 2003 is attached. Emissions are summarized in the following table.

2003 Actual Emissions

Total Criteria Air Pollutant Emissions in Tons/Year						
VOC	VOC CO SO <sub>2</sub> NO <sub>x</sub> PM <sub>10</sub> PM					
36.5		15.9	55.9	8.6	19.1	

Emission Unit Applicable Requirements Involving Significant Modification – Thermal Dryer Requirements (2A/2B/2C/2D, and 3A/3B/3C/3D):

The startup burners currently installed on each thermal dryer are to be modified for propane combustion. Additional startup burners for distillate oil combustion are to be installed on each thermal dryer.

#### Limitations

The permittee has applied to include the following applicable requirements from the State Operating Permit (SOP) dated October 3, 2003, in the Title V permit:

Condition 3 of the SOP limits approved fuels for the thermal dryers' start-up burners to natural gas, propane, and distillate oil.

Condition 4 of the SOP requires the distillate oil to meet ASTM specifications for numbers 1 and 2 fuel oil with a maximum sulfur content of 0.5 weight percent.

Condition 6 of the SOP limits throughput to both thermal dryer start-up burners to a combined total of no more than 193,450 gallons of propane per year and 124,465 gallons of distillate oil per year.

Condition 7 of the SOP requires emissions from each thermal dryer start-up burner to not exceed the following:

Sulfur Dioxide	6.11 lbs/hr	4.42 tons/yr
Nitrogen Oxides	4.25 lbs/hr	3.08 tons/yr
Carbon Monoxide	0.86 lbs/hr	0.62 ton/yr

Condition 8 of the SOP limits visible emissions from the thermal dryers when the start-up

burners are in use to no more than 20% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A) except during one six-minute period in any one hour in which visible emissions shall not exceed 30 % opacity. This condition applies at all times except during startup, shutdown, and malfunction.

# **Monitoring and Recordkeeping**

The permittee has applied to include the following requirements from the SOP dated October 3, 2003, in the Title V permit:

Condition 5 of the SOP requires the permittee to obtain a certification from the fuel supplier with each shipment of distillate oil. Each certification shall include the following:

- The name of the fuel supplier;
- Date on which the oil was delivered;
- Volume of oil delivered;
- Statement that the oil complies with ASTM specifications; and
- Sulfur content of the oil.

Condition 9 of the SOP requires the permittee to keep records of annual throughput of propane and distillate oil for each thermal dryer start-up burner, and all fuel supplier certifications.

# Emission Unit Applicable Requirements Involving Significant Modification – Facility-Wide Requirements:

The permittee has applied for the addition of three new refuse transfer conveyor belts. The new refuse belts are designated as Emission Units 39, 40, and 41.

Each citation in the current Title V permit containing an NSR permit condition is updated to reference the most current NSR permit dated August 18, 2003.

#### Limitations

The permittee has applied to include the following requirement from the minor NSR permit dated August 18, 2003, in the Title V permit:

Condition 9 of the minor NSR permit limits visible emissions from all of the equipment at the facility to no more than 20% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

# **Testing**

The permittee has applied to include the following testing requirements from the minor NSR permit dated August 18, 2003, in the Title V permit:

Condition 12 of the minor NSR permit requires the permittee to conduct a Visible Emission Evaluation in accordance with 40 CFR 60, Appendix A, Method 9, on each of the three new refuse belts. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Southwest Regional Office. The evaluation shall be performed within 60 days after achieving the maximum production rate at which the permitted facility will be operated but in no event later than 180 days after startup of the permitted facility. Two copies of the test result shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report enclosed with the permit.

# Reporting

The permittee has applied to include the following applicable requirements from the minor NSR permit dated August 18, 2003, in the Title V permit:

Condition 13 of the minor NSR permit requires the permittee to furnish notification to the Director, Southwest Regional Office, of the following:

- The actual date on which construction of the refuse belts commenced within 30 days after such date.
- The actual startup date of the refuse belts within 15 days after such date.
- The anticipated date of performance tests of the refuse belts postmarked at least 30 days prior to such date.

Copies of the written notification referenced in the first two items above are to be sent to the U.S. EPA, Region III.

The requirements of Condition 13 have been fulfilled through the notification dated July 14, 2004. Therefore, the requirements of Condition 13 no longer apply and are not included in the Title V permit.

#### **ADMINISTRATIVE CHANGES**

As requested by the permittee, the Responsible Official listed in the current permit is changed to Jess Justice, President.

#### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating-permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

#### **Comments on General Conditions**

# **B.** Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 3-2001."

#### F. Failure/Malfunction Reporting

Section 9 VAC 5-120-180 requires malfunction and excess emissions reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to 9 VAC 5-20-180 including Title V facilities. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four day time business hours after discovery of the malfunction.

# U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunction that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

# Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

#### **CONFIDENTIAL INFORMATION**

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

# **PUBLIC PARTICIPATION**

In accordance with 9 VAC 5-80-230 D and 9 VAC 5-80-270, a public notice announcing a 30-day public comment period for the draft permit appeared in the <u>Lebanon News</u> on August 25, 2004. EPA was sent a copy of the draft permit and notified of the public notice by electronic mail on August 20, 2004. The affected states, including West Virginia, Kentucky, North Carolina and Tennessee were each sent a copy of the public notice by regular mail on August 20, 2004. All persons on the Title V mailing list were sent a copy of the public notice by electronic mail, facsimile or regular mail no later than August 25, 2004.

Public comments were accepted from August 25, 2004, through September 23, 2004. No comments were received during the public comment period from the public, affected states or EPA, regarding the draft permit.